EVALUATION OF QUALITY PERCEPTION OF MEDICAL SCHOOL STUDENTS IN THE CONTEXT OF SERVICE FACTORS

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Abstract

This study aimed to determine the role of demographic characteristics and academic achievement on medical faculty students opinions about quality.For this purpose, students were asked two questions on this issue about the curriculum: "What is quality?" and "What Do You Think About the Quality of Your Faculty?" Students answers were coded according to the "Quality Scale in Education Services". Participating students (n = 190) were from Mersin University Medical Faculty during 2018-2019 session. The mean age of the students was 20.87±1.18. Additionally, 48.9% of the students who participated in the study were female, with a GPA (grade point average) of 67.78±6.31, and 61.6% were born in the Mediterranean region. Academically more successful students expressed positive views for the institution's diploma opportunities (p=0,004). Nearly half of the students' opinion against the institution's educational service is positive. However, it is important to raise awareness of the service officers and stakeholders to reinforce the positive aspects of our study and to correct the negative aspects. As in this study, determining the quality perceptions of students within the framework of higher education service quality factors contributes to planning to improve the service quality of higher education.

Keywords: Education, Quality, Quality perception, Medical Student, Service Quality, Higher Education

Introduction

Higher education institutions have many different stakeholders (students, student parents, local people, NGOs and other administrative bodies, etc.) and all stakeholders are influenced and benefited by the service of the higher education institution and get ideas. All

stakeholders are closely related to grad students studying at the higher education institution and to the process in which the product was created at varying proportions (Rowley, 1997). The expectations of the students who are both input and output of the service process of higher education institutions may be to gain their knowledge, attitudes and skills in a comfortable, peaceful, social and cultural environment. The perceived quality of the service can be explained by the result of an evaluation process in which the expectations and perceptions of the students who receive and perceive the service are compared. At the end of the process, the perceived quality of service is formed. Therefore, the quality of service is

explained as dependent on two variables: the expected service and the perceived service (Grönross, 2001). Services that match student expectations and perceptions are perceived as high quality. It is very important that higher education institutions are interested in the quality of education as well as the quality of service. That is why the quality of service directly improves the quality of education.

The quality, which varies from person to person, gains meaning according to the perception of individuals (Karcıoğlu & Biçer, 2013). Quality is a subjective concept that can have different meanings because of the values, beliefs, behaviours and attitudes of individuals (Hogston, 1995). According to Garvin (1998), the eight dimensions of quality perceived by the consumer are performance, features, reliability, conformity, durability, service capability, aesthetics, and perceived quality (Garvin, 1998).

It is possible to examine quality in two ways as real quality and perceived quality (Işığıçok, 2004).Real quality; The level of quality that is achieved if the efforts and costs for the delivery of a product or service reach the specifications of the product or service.Perceived quality; It is the quality that a customer perceives and refers to the level of the product or service that supplies the customer's expectations. In fact, the perception of quality can be explained by that quality is a concept that varies according to the person and changes according to one's experience and expectations (Karakaş, 2012).

Compliance of education services with the expectations of the society is defined as quality in education (Saran, Özgür, Khorshid, Vatan, Yalçınkaya & Demircioğlu, 2004). It is possible to examine the quality of education in two ways. Quality in design is related to both output (for example, an academic program that supplies the students' requirement) and process (e.g. curriculum, tools and equipment, planning, and other factors affecting the program). Achieving the results refers also the quality in output (Özdemir, 2002).

There are two factors that affect quality in education. Internal factors are managers, academic staff, training programs, educational environment and other employees. External factors are service areas, application areas, technological developments, social needs, families and higher educational institutions (Numanoğlu, 2001).

Service quality is a comparison of perceived service performance with expected service (Parasuraman, Zeithaml & Berry, 1985). Instead of the concept of "service quality" in the literature, the concept of "perceived service quality" is often used (Uyguç, 1998). If the expected service is greater than the perceived service, i.e. if the difference is negative, the

perceived quality is unsatisfactory. If the expected service and perceived service are equal, the quality is satisfactory and acceptable. If the expected service is lower than the perceived service, i.e. if the difference is positive, the perceived quality is high (Okumuş & Duygun, 2008).

Quality in higher education is a multidimensional, multi-layered and dynamic concept that is related to the situational conditions of the educational model as well as the specific standards of a particular system, organization, program or discipline, corporate duties and objectives (Vlãsceanu, Grünberg & Pârlea, 2004).

Student perceptions are the first step in determining the quality level of educational services. With the analysis of student perceptions, the student's satisfaction with the quality of service emerges. The most important starting point in determining the standard of service quality is the determination of students' perceptions of the quality of education services. According to the results of the analysis of quality perceptions, retrospective information and responses should be obtained from students and necessary arrangements should be made to ensure the satisfaction of the student's service quality. Identifying and taking into account the successes or failures of the quality of offered service ensure to have findings to improve and promote the training process in the future (Özgeldi & Yamamoto, 2008).

Some research estimating the quality level of education services in higher education is available in the literature (Kocapınar, 2002) (Altan, Ediz & Atan, 2003) (Tan & Kek, 2004) (Yılmaz, Filiz & Yaprak, 2007) (Okumus & Duygun, 2008). The changing structure of higher education institutions through the increasing demands of society and the differentiation of the competition and teaching systems lead to questioning of quality in universities. Efforts for improving quality perception in education are aimed at determining the strategies of educational institutions, supplying stakeholder expectations and increasing quality by creating competition in the education sector. When searching for answers to the question "What is quality?", the factors of quality should be taken into account. Quality is to catch the standard. It is also to monitor and control the process defined by the experts of the subject and to evaluate the mentioned product or service (Dallaire, 2002).

Students are the most important stakeholders of higher education institutions. Various studies are carried out by higher education institutions to evaluate the quality of service in education, to make the necessary arrangements for the services they provide, and to take measures. Studies in the literature, which estimate differences between students' perceptions of quality, were reviewed.

Bektaş and Ulutürk Akman (2013) created a scale tested for its validity and reliability by utilizing the HEdPERF, which we used to measure the quality of service offered to students in higher education. The findings of the study show that the scale can be used as a valid and reliable measuring tool for determining the quality of service offered by higher education institutions in Turkey.

The training given in medical schools consists of two stages; pre-clinical and clinical. There are many factors that affect the academic success of students in education (Ogenler &

Selvi, 2014). The period of study at Mersin University Faculty of Medicine is 6 years. The integrated teaching and examination system is applied for the course boards in the 1st, 2nd and 3rd classrooms, each of which is considered as a separate course. Also, each of the internships in 4th, 5th and 6th classrooms is considered an apart course (Mersin University Faculty of Medicine Principles of Teaching and Examination, 2018-2019). The 2nd-grade students in the study group of this study have 639 hours of theoretical and 155 hours of practical, totally 794 hours of course hours on the course boards (Mersin University Faculty of Medicine Education Guide, 2018-2019). Questioning the quality of the educational service in the background of factors affecting academic achievements can be difficult due to the length of the training, the broad curriculum it covers and integration.

It is possible for higher education institutions to improve the quality of educational services and to give students knowledge, attitudes and skills by creating an academic, social and cultural environment. In this study, taking into account the perceptions of quality concepts of medical faculty students, their opinions and suggestions were evaluated to obtain fundamental data to ensure that students are involved in the quality process and are permanent in the quality assessment process and to improve and disseminate quality in medical school.

In this context, the opinions of medical school students who benefit from education services for the profession of medicine are important.

Method

Study design

This is a cross-sectional descriptive study that aimed to examine medical students' views on the quality assessment process in faculty of medicine.

Research sample and object

The study population comprises 291 students studying in the first grade at the Medical School in the period 2018-2019. To increase the awareness of the students in the introduction of the course "Origin of Medicine and Pre-Medical Practices" which is included in the educational curriculum of the department of medical history and Ethics, the questions "what is quality?" and "what do you think of the quality of your faculty" were asked in open-ended way. 190 students answered the open-ended questions.

The answers obtained from the students were divided in terms of the determined factors of the "quality scale in education services" (e.g. administrative aspect of the institution, academic aspect of the institution, image of the institution, accessibility, diploma programs offered by the institution, physical facilities of the institution), whose validity and reliability have been tested by using HEdPERF which is used to measure the quality of services offered to students in higher education (Bektaş & Ulutürk Akman, 2013). The status of supplying the expectations stated in the answers was coded by the researchers as positive, negative, and neutral. Answers not related to questions excluded from the assessment.

Data analysis

The students' gender, marital status, place of birth, age, points they received from OSYM exam, years of entry to the faculty, committee grades and success status were obtained by

taking permission of the Faculty Administration at the beginning of the 2018-2019 semester. The resulting data were compared to the codes configured by the researchers. Frequency, mean±standard deviation, Mann Whitney U, Student-t test were used to summarize the data, $p < 0.05$ was considered statistically significant.

Results

Table 1: **Academic achievements of students**

		Total	Gender	Mean±SS	P
Committee Notes	Committee 1	79,33 ± 6,37	Man	78,29±6,44	0,02
			Woman	80,40±6,15	
	Committee 2	63,59 ± 10,64	Man	63,42±10,27	0,82
			Woman	63,77±11,06	
	Committee 3	73,44 ± 8,70	Man	72,12±9,28	0,03
			Woman	74,81±7,86	
	Committee 4	63,22 ± 10,89	Man	62,88±10,47	0,66
			Woman	63,58±11,35	

Demographic features		N: (%)
Gender	Woman	93 (48,9)
	Man	97(51,1)
Regions	Central Anatolia	13 (6.8)

		Total	Gender	Mean±SS	P
	Committee 5	56,60 ± 13,04	Man	54,87±12,36	0,06
			Woman	58,39±13,54	
	Committee 6	65,58 ± 7,33	Man	65,02±7,00	0,27
			Woman	66,18±7,66	
Final Grade		67,78 ± 6,31	Man	67,04±5,87	0,09
			Woman	68,56±6,68	
Committee Notes OSYM score			Man	455,44± 94,08	0,06
			Woman	473,64 ± 3,37	

	Mediterranean	117 (61.6)
	Black Sea	2 (1.1)
	Marmara	2 (1.1)
	Eastern Anatolia	4 (2.1)
	Southeast Anatolia	50 (26.3)
	Abroad	2 (1.1)

Of the 291 students who received education in the 2018-2019 education year, 190 attended the study. The mean age of the students was 20.87±1.18. Of the students participating in the study, 48.9% (93) were female and 51.1% (97) were male. The grade point average (GPA) of the students was 67.78±6.31. Female students were found to be more successful than men in the first (p=0.02), third (p=0.03) committee, and tended to be successful in the fifth committee (p=0.06), final exam (p=0.09) and university entrance point (OSYM exam) (p=0.06).

Table 2: **Demographic characteristics of participants**

As shown in Table 2, 6.8% of the 190 students who participated in the study were from Central Anatolia region, 61.6% from Mediterranean region, 1.1% from Black Sea region, 1.1% from Marmara region, 2.1% from Eastern Anatolia region and 26.3% from Southeastern Anatolia region. 1.1% attendants were foreign students.

Table 3: Distribution of positive students according to academic achievement in terms of quality perception service factors

Factors	Phrase	N	Final Grade	P*
Academic Aspects of the Institution	Positive	40	69,42	0,065
	No	150	67,35	
Image of Institution	Positive	36	67,11	0,476
	No	154	67,94	
Accessibility	Positive	8	69,00	0,469
	No	182	67,73	
Diploma Programs Offered by the Institution	Positive	47	70,06	0,004*
	No	143	67,04	
Physical Facilities of the Institution	Positive	48	68,85	0,149
	No	131	67,32	
Giving a Positive Answer to Any Factor	Positive	98	68,42	0,155
	No	89	67,11	

P <0.05

The GPA of the students was 67.78±6.31. There is no statistically significant difference between the academic achievements of the students who express a positive opinion for the academic aspect, image, and physical facilities of the institution (p>0.05). The academic achievements of students who give positive opinions for the institution's diploma opportunities are higher than those who do not give opinions, the difference is statistically significant (p=0,004), 17 students responded about the administrative aspect of the institution but did give neither a positive or a negative opinion, final grade of this students is 68,70. In the context of service factors of quality perception, there is no difference in academic achievement among students who think positively on any factor (p>0,05).

Discussion

In our study, we determined that the quality perceptions of the first-grade students of Mersin University Faculty of Medicine in terms of educational services factors were generally positive. More than half of the students expressed a positive opinion on any quality of service factor, indicating the existence of the quality of education provided in the medical school and the perception of this service by the students. The impact of educational service on the academic success of students in medical education and ensuring that resources are used effectively and efficiently in achieving the objectives are worth investigating. The duration of the education given in medical schools is longer and more intensive than other faculties. There are studies that have found that different variables and quality of educational services play a role in students' academic achievement levels (Ataman & Adıgüzel, 2019) (Ogenler & Selvi, 2014).

In our study, the participating students included all the factors in their statements: administrative, academic, physical, accessibility, diploma and image aspect of the institution. The participated students expressed positive opinions mostly about the physical possibilities of the institution, and in second place is the academic aspect and image and the institution's diploma opportunity, respectively. The accessibility factor is last in line. Students who wrote statements about the administrative aspect mentioned this factor as a definition but did not give a positive or negative opinion. Similar to the present study, Ataman & Adıgüzel (2019) investigated the perceptions of university students regarding quality in higher education and whether they differ according to the demographic characteristics of the students. Ataman &

Adıgüzel (2019) revealed that students considered almost all of the items on the quality scale as important in higher education. The participants were observed to found the expressions related to the 'management' sub-dimension the most important, which were followed by the sub-dimensions of the "University's physical infrastructure and facilities, teaching-learning process, scientific and social activities, academic staff, other students", respectively.

In our study, participants expressed a positive view in the academic aspect of the school of Medicine in terms of educational service quality perception. Academic staff need to be able to achieve universal quality level while fulfilling their research and teaching obligations. It is suggested that the primary purpose of universities at the beginning of the XX. century is to research according to the European model. Since 1980, students, families and society in general expect that teaching in the higher education process will be evaluated by the students and that scoring must be performed to the teaching process to prove the efficiency of teaching (Kalaycı, 2009). The reliability of student evaluations is high. It is important for the academic staff and the institutions to evaluate themself.

The negative opinion reported by students in the present study is only about the physical aspect of the institution. The positive view of the students in terms of academic direction and the concentration of negative views on physical conditions are suggestive in terms of the possibilities of the institution. Giving an opinion by students was considered to be positive, such as the academic staff's mastery of the course subject, providing adequate communication in the classroom, having the knowledge to answer questions, willingness to teach, being kind and respectful to the student in the statements. Similar to our study, there are studies in the literature which obtained a positive result for faculty members in the medical faculty (Coşkun & Nasır, 2018).

The statement of accessibility relates to the faculty member's sincere approach to their problems, giving the student enough time, giving feedback on the student's knowledge and skills. However, only eight students gave their opinions on accessibility, which is a warning that the academically successful faculty member is unreachable. Gizir (2010) studied on students of Mersin University and found that students were socio-economically problematic. The most fundamental problems are on economic and family life (Gizir, Gizir, Aktaş, Göçer, Ömür, Yüce & Kırık, 2010). It is important that Gizir's research added the problem of reaching the academic staff by students which is an indicator of the quality of educational services in

addition to the similar features such as family life and economic situation. The presence of problems related to accessibility, which is the part of the academic aspect of the institution, indicates the existence of negative factors that are difficult to measure in the quality of education services (Gizir, Gizir, Aktaş, Göçer, Ömür, Yüce & Kırık, 2010). In the light of research findings aimed at improving the quality of service in higher education institutions, universities should take into account student opinions and pay attention to their opinions. The quality of the education services should be assessed and commissions should be established to assess the quality of service in education. Analyzing student perceptions by higher education institutions to increase their effectiveness in education will lead to positive improvements in student training and service processes (Bolaç & Ögenler, 2017). The student counselling coordination commission at Mersin University Faculty of Medicine has been working on solving such problems since 2018. (http://www.mersin.edu.tr/akademik/tip-fakultesi/kurullar-ve-komisyonlar).

It is noteworthy that students wrote statements about the administrative structure from the sub-factors of educational service quality, but did not give positive or negative opinions. This determination is thought to be stimulant about the power distance that exists in the community. The power distance accepts the centralization of power and is often located within the structure created by the administrators and in a position waiting for their directives. First-grader students are in a position to reflect their views taken from society (Ogenler & Yapıcı, 2011). Therefore, they are expected to have a similar opinion on the administration.

The birthplace of more than half of the participating students is the Mediterranean region. There are no differences between the reported opinions in terms of places of birth, but it is noteworthy that students who report negative views are from the same region because they affect each other. There are no studies in the literature that measure educational service perception according to regions. However, there are studies reporting that the distinctions in rural and urban areas in terms of education service are high (Temurçin & Şenol 2008).

The academic achievement of female students in our study is significantly higher than that of male students. However, there are no significant differences between educational service quality perceptions in terms of gender. Similarly, the study conducted by Yelkikalan,

Sumer & Temel (2006) found no relationship between students' perceptions of faculty and gender and grade point average variables (Yelkikalan, Sumer & Temel, 2006). However, Özdemir (2016) conducted a research to determine the relationship between the academic achievements of undergraduate students at Gaziantep University and their views on the quality of teaching processes and learning resources in higher education institutions and concluded that the relevant variables had a significant share in student success (Özdemir, 2016). As a result of the study conducted by Taylan (2015), Bektaş & Ulutürk Akman (2013), the quality of service by administrative and academic staff perceived by students according to gender variable is at the same level (Taylan, 2015) (Bektaş & Ulutürk Akman, 2013). Students' satisfaction and dissatisfaction differ according to age groups. There is no relationship with age in our study.

In our study, participants expressed positive views on the image of the institution in terms of education service quality perception. Tayyar & Dilşeker (2012) found that student satisfaction had an effect on loyalty and advice; the variables affecting student satisfaction are the quality of service and image. Universities need to improve their academic staff, internationalisation and image to increase student satisfaction (Karacabey, Özdere, Bozkuş, 2016).

The students who had high academic success gave statistically positive opinions compared to others in our study about the institution's diploma opportunities. This gives an idea that the quality of education services after graduation offered by the institution is perceived positively by the student. The positive opinion of first-grade students about diplomas may indicate that the diploma opportunities of the institution are taken into account considering the quality of educational service as the reason for university preference. According to Altbach, Reisberg & Rumbley (2009), it becomes increasingly important for countries to ensure the quality of programmes in other countries, as international student mobility in higher education tends to increase. Concerns such as the elimination of problems for the recognition of equivalence of diplomas received from other countries are among the factors that make quality assessment necessary in higher education. Especially peer review based studies and the creation of institutional structures for quality assurance in higher education are considered positive, while qualification assessment studies are relatively new in Europe and therefore not widespread (Altbach, Reisberg & Rumble, 2009). Mersin University

Faculty of Medicine was accredited by the Association for Evaluation and Accreditation of Medical Education Programs (TEPDAD) since 2012 (http://tepdad.org.tr/akredite-egitim-programlari). Universities are one of the most important structures of education that build our future. While responding to ever-increasing and changing expectations, they also have to protect our values coming from the past, adapt to the world of today and be ready for the future. The raw stuff and input of universities are students. Their output is also grad students. The quality of grad students to supply the needs of the sectors related to their professions plays a key role in shaping the future and in maintaining the existence of universities as institutions. The fact that the students in our study have a positive opinion about the diploma opportunities of the institution is very important in terms of the educational service quality perception of the institution.

Conclusion

The findings of our study provide an idea of the strengths and weaknesses aspects of medical school. Students' views on the quality of educational services can be a guide in improving and maintaining the quality of the service provided by the faculty.

Students' opinions are an important, valid and reliable resource for providing quality education (Penny, 2003). Since perception varies from individual to individual, students' perceptions, opinions, suggestions and priorities about quality should not be ignored in the process. Students' perceptions should be taken into account, participation in the quality process should be ensured and it should be noted that the persistence of this process will affect the quality of service in higher education. For this reason, improvement efforts for quality of education should be done primarily by learning the perceptions, opinions and suggestions of the students about quality. Based on these reasons, positive features in the faculty should be reinforced and negative features should be tried to be resolved with planning.

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